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How Relevance Feedback is Framed A ects User Experience, but not Behaviour

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ABSTRACT

Retrieval systems based on machine learning require both positive and negative examples to perform inference, which is usually obtained through relevance feedback. Unfortunately, explicit negative relevance feedback is thought to have poor user experience. Instead, systems typically rely on implicit negative feedback. In this study, we con rm that, in the case of binary relevance feedback, users prefer giving positive feedback (and implicit negative feedback) over negative feedback (and implicit positive feedback). These two feedback mechanisms are functionally equivalent, capturing the same information from the user, but di er in how they are framed. Despite users' preference for positive feedback, there were no signi cant di erences in behaviour. As users were not shown how feedback in uenced search results, we hypothesise that previously reported results could, at least in part, be due to cognitive biases related to user perception of negative feedback.

CCS CONCEPTS

ˆ Information systems Relevance assessment‡

KEYWORDS

relevance feedback, negative relevance feedback, user studies, experimental design, scienti c literature search

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1 BACKGROUND

Traditional information retrieval (IR) systems present users with